

## Gerald G. Fuller

Department of Chemical Engineering, Stanford University

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### (a) Professional Preparation

University of Calgary	Canada	Chemical Engineering	B.Sc., 1975
California Institute of Technology	Pasadena, CA	Chemical Engineering	M.S., 1977
California Institute of Technology	Pasadena, CA	Chemical Engineering	Ph.D., 1980
Institut Charles Sadron	Strasbourg, France	Polymer Science	Postdoc, 1980

### (b) Appointments

Fletcher-Jones II Professor of Engineering, Stanford University (02/06 - present)

Professor, Chemical Engineering, Stanford University (09/87 - present)

Chair, Chemical Engineering, Stanford University (06/96 - 03/01; 07/09 - 06/10)

Associate Professor, Chemical Engineering, Stanford University (10/85 - 08/87)

Assistant Professor, Chemical Engineering, Stanford University (10/80 - 09/85)

### (c) Products

#### *Most Relevant Publications*

1. Chandran Suja V, Kar A, Cates W, Remmert SM, Savage PD, Fuller GG, Evaporation-induced foam stabilization in lubricating oils, PNAS (in press, 2018).
2. Kannan A, Shieh IC, Leiske DL, Fuller GG, Monoclonal Antibody Interfaces: Dilatation Mechanics and Bubble Coalescence, Langmuir, 34(2018)630.
3. Bochner S, Merola M, Vlassopoulos D, Fuller GG, Droplet coalescence and spontaneous emulsification in the presence of asphaltene adsorption, Langmuir (2017) DOI: 10.1021/acs.langmuir.7b02638.
4. Walls DJ, Haward SJ, Shen AQ, Fuller GG, Spreading of miscible liquids, Phys Rev Fluids, 1(2016)013904.
5. Lin GL, Pathak JA, Kim DH, Carlson M, Riguero V, Kim YJ, Buff JS, Fuller GG, Interfacial dilatational deformation accelerates particle formation in monoclonal antibody solutions, Soft Matter, 2016.

#### *Other Significant Publications*

1. Surya V, Michalaki E, Fuller GG, Dunn A, Sphingosine 1-phosphate receptor 1 regulates the directional migration of lymphatic endothelial cells in response to fluid shear stress, J Royal Soc Interface, 2016, doi.org/10.1098/rsif.2016.0823.
2. Hermans E, Bhamla MS, Kao P, Fuller GG, Vermant J, Lung surfactants and different contributions to thin film stability, Soft Matter 11(2015)8048.
3. T. Hsu, T. Walker, C. Frank, G. Fuller, Role of fluid elasticity on the dynamics of rinsing flow by an impinging jet, Physics of Fluids, 23(2011)033101.
4. Travis W. Walker, Tienyi T. Hsu, Curtis W. Frank, and Gerald G. Fuller, Role of shear-thinning on the dynamics of rinsing flow by an impinging jet, Phys. Fluids 24 (2012) 093102
5. Hollenbeck EC, Fong JCN, Lim JY, Yildiz F, Fuller GG, Cegelski L, Molecular determinants of mechanical properties of V. cholera biofilms at the air-liquid interface, Biophysical J, 107(2014)2245

### (d) Synergistic Activities

1. Prof. Fuller has mentored approximately 35 undergraduates through REU programs at Stanford University.

2. Prof. Fuller has mentored 25 high school students and 4 middle school and high school teachers through Stanford's Science Outreach program. This effort is primarily directed towards disadvantaged youth and underrepresented minorities. For the past 5 years, a total of 13 high school students have been housed in Prof. Fuller's home during these summer internships. All of the high school students have successfully transitioned into college and most have gained admission to the nation's very best institutions. Three high school interns have been selected as finalists in the Seimens Westinghouse Science and Technology Competition.
3. In recognition for his mentorship of undergraduates in research, Stanford awarded Prof. Fuller with the Cox Medal for Excellence in Fostering Undergraduate Research in 2006.
4. Through his position as Chair of the International Committee on Rheology (2004-08), Prof. Fuller helped established Societies of Rheology in South Africa, Romania, Brazil, and India. Each of these societies were organized over the four years during his tenure in this position. In support of new societies, he has also taught short courses on rheology in South Africa, Brazil, Argentina, and Colombia during the past four years. He presently serves as Secretary to the International Congress on Rheology.